

~6590434.txt
SEQUENCE LISTING

<110> Merck Patent GmbH

<120> Variants of the major allergen Phl p 1 from timothy grass

<130> P 02/129

<140> EP 02 018 157.4

<141> 2002-08-19

<160> 2

<170> PatentIn version 3.1

<210> 1

<211> 723

<212> DNA

<213> Phleum pratense

<220>

<221> CDS

<222> (1)..(720)

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aag tgg ctg gac gcg aag agc acc tgg tac ggc aag ccg acg gcc gcc      96
lys trp leu asp ala lys ser thr trp tyr gly lys pro thr ala ala
20                               25                               30

ggt ccc aag gac aac ggc ggc gcg tgc ggg tac aag gac gtg gac aag      144
gly pro lys asp asn gly gly ala cys gly tyr lys asp val asp lys
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ccc ccg ttc agc ggc atg acc ggc tgc ggc aac acc ccc atc ttc aag      192
pro pro phe ser gly met thr gly cys gly asn thr pro ile phe lys
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Glu	Ala	Cys	Ser	Gly	Glu	Pro	Val	Val	Val	His	Ile	Thr	Asp	Asp	Asn		
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gag	gag	ccc	atc	gcc	gcg	tac	cac	ttc	gac	ctc	tcc	ggc	atc	gcg	ttc		336
Glu	Glu	Pro	Ile	Ala	Ala	Tyr	His	Phe	Asp	Leu	Ser	Gly	Ile	Ala	Phe		
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ggg	tcc	atg	gcc	aag	aag	ggc	gac	gag	cag	aag	ctg	cgc	agc	gcc	ggc		384
Gly	Ser	Met	Ala	Lys	Lys	Gly	Asp	Glu	Gln	Lys	Leu	Arg	Ser	Ala	Gly		
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gag	gtg	gag	atc	cag	ttc	cgc	cgc	gtc	aag	tgc	aag	tac	ccg	gag	ggc		432
Glu	Val	Glu	Ile	Gln	Phe	Arg	Arg	Val	Lys	Cys	Lys	Tyr	Pro	Glu	Gly		
	130					135						140					
acc	aag	gtg	acc	ttc	cac	gtg	gag	aag	ggg	tcc	aac	ccc	aac	tac	ctg		480
Thr	Lys	Val	Thr	Phe	His	Val	Glu	Lys	Gly	Ser	Asn	Pro	Asn	Tyr	Leu		
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gcg	ctg	ctg	gtg	aag	ttt	gtc	gcc	ggc	gac	ggc	gac	gtg	gtg	gcg	gtg		528
Ala	Leu	Leu	Val	Lys	Phe	Val	Ala	Gly	Asp	Gly	Asp	Val	Val	Ala	Val		
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Asp	Ile	Lys	Glu	Lys	Gly	Lys	Asp	Lys	Trp	Ile	Ala	Leu	Lys	Glu	Ser		
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Trp	Gly	Ala	Ile	Trp	Arg	Ile	Asp	Thr	Pro	Glu	Val	Leu	Lys	Gly	Pro		
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Phe	Thr	Val	Arg	Tyr	Thr	Thr	Glu	Gly	Gly	Thr	Lys	Gly	Glu	Ala	Lys		
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tga																	723

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<212> PRT

<213> Phleum pratense

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 Glu Ala Cys Ser Gly Glu Pro Val Val Val His Ile Thr Asp Asp Asn
 85 90 95
 Glu Glu Pro Ile Ala Ala Tyr His Phe Asp Leu Ser Gly Ile Ala Phe
 100 105 110
 Gly Ser Met Ala Lys Lys Gly Asp Glu Gln Lys Leu Arg Ser Ala Gly
 115 120 125
 Glu Val Glu Ile Gln Phe Arg Arg Val Lys Cys Lys Tyr Pro Glu Gly
 130 135 140
 Thr Lys Val Thr Phe His Val Glu Lys Gly Ser Asn Pro Asn Tyr Leu
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 Ala Leu Leu Val Lys Phe Val Ala Gly Asp Gly Asp Val Val Ala Val
 165 170 175
 Asp Ile Lys Glu Lys Gly Lys Asp Lys Trp Ile Ala Leu Lys Glu Ser
 180 185 190
 Trp Gly Ala Ile Trp Arg Ile Asp Thr Pro Glu Val Leu Lys Gly Pro
 195 200 205
 Phe Thr Val Arg Tyr Thr Thr Glu Gly Gly Thr Lys Gly Glu Ala Lys
 210 215 220
 Asp Val Ile Pro Glu Gly Trp Lys Ala Asp Thr Cys Tyr Glu Ser Lys
 225 230 235 240